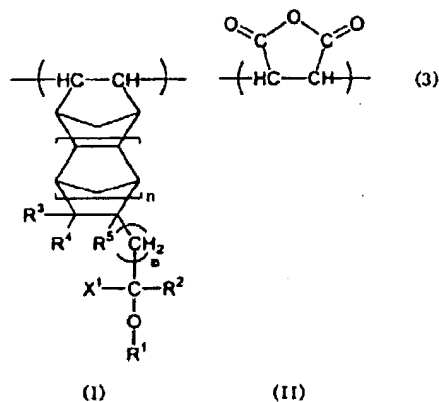


**IN THE CLAIMS**

1 - 4 (Cancel)

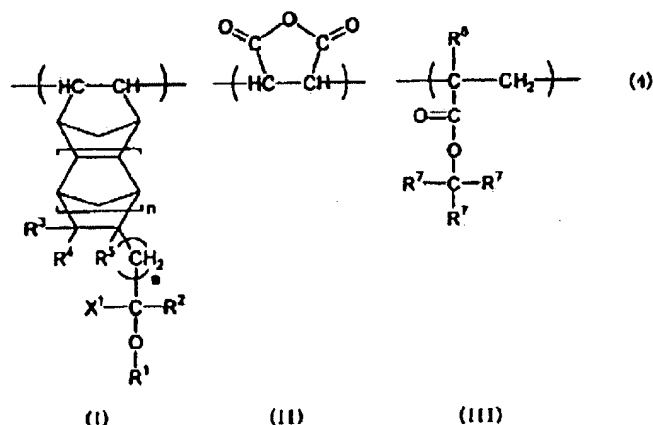
5. (Previously Presented) A radiation-sensitive resin composition comprising (A) an alkali insoluble or scarcely soluble acid-labile group-containing resin having a recurring unit (I) and a recurring unit (II) shown by the following formula (3) and (B) a photoacid generator:



wherein R<sup>1</sup> represents a hydrogen atom, a monovalent acid-labile group, an alkyl group having 1-6 carbon atoms which does not have an acid-labile group, or an alkylcarbonyl group having 2-7 carbon atoms which does not have an acid-labile group, X<sup>1</sup> represents a linear or branched fluorinated alkyl group having 1-4 carbon atoms, R<sup>2</sup> represents a hydrogen atom, a linear or branched alkyl group having 1-10 carbon atoms, or a linear or branched fluorinated alkyl group having 1-10 carbon atoms, R<sup>3</sup>, R<sup>4</sup>, and R<sup>5</sup> individually represents a hydrogen atom or a linear or branched alkyl group having 1-4 carbon atoms, a monovalent oxygen-containing polar group, or a monovalent nitrogen-containing polar group, n is an integer of 0-2, and m is an integer of 0-3.

6. (Original) The radiation-sensitive resin composition according to Claim 5, wherein the content of the recurring unit (I) in the resin component (A) is 1-50 mol% of the total amount of recurring units.

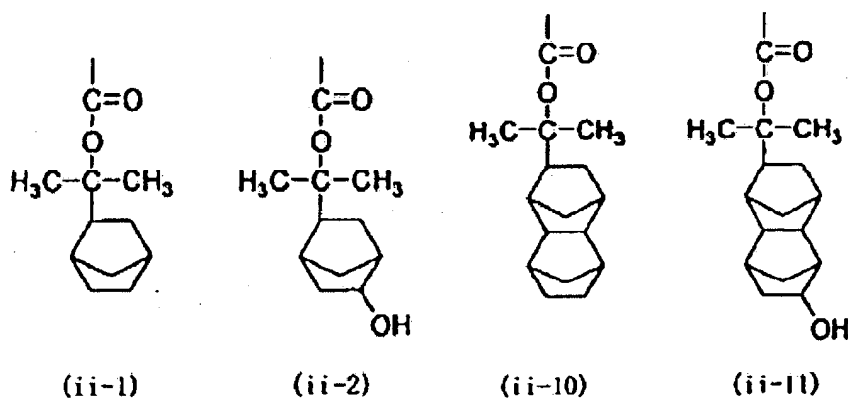
7. (Previously Presented) A radiation-sensitive resin composition comprising (A) an alkali insoluble or scarcely soluble acid-labile group-containing resin (A) having a recurring unit (I), a recurring unit (II), and a recurring unit (III) shown by the following formula (4):



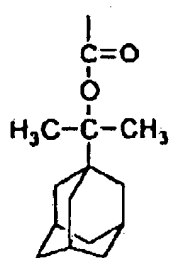
wherein R<sup>1</sup> represents a hydrogen atom, a monovalent acid-labile group, an alkyl group having 1-6 carbon atoms which does not have an acid-labile group, or an alkylcarbonyl group having 2-7 carbon atoms which does not have an acid-labile group, X<sup>1</sup> represents a linear or branched fluorinated alkyl group having 1-4 carbon atoms, R<sup>2</sup> represents a hydrogen atom, a linear or branched alkyl group having 1-10 carbon atoms, or a linear or branched fluorinated alkyl group having 1-10 carbon atoms, R<sup>3</sup>, R<sup>4</sup>, and R<sup>5</sup> individually represents a hydrogen atom or a linear or branched alkyl group having 1-4 carbon atoms, a monovalent oxygen-containing polar group, or a monovalent nitrogen-containing polar group, n is an integer of 0-2, m is an integer of 0-3, R<sup>6</sup> represents a hydrogen atom or methyl group, and R<sup>7</sup> individually represents a linear or branched alkyl group having 1-4 carbon atoms or a monovalent alicyclic hydrocarbon group having 4-20 carbon atoms or a derivative thereof, or any two of R<sup>7</sup>'s form in combination with a divalent alicyclic hydrocarbon group having 4-20 carbon atoms or a derivative thereof, with the remaining R<sup>7</sup> being a linear or branched alkyl group having 1-4 carbon atoms or a monovalent alicyclic

hydrocarbon group having 4-20 carbon atoms or a derivative thereof.

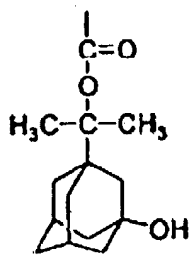
8. (Original) The radiation-sensitive resin composition according to Claim 7, wherein the group  $-\text{COO}-\text{C}(\text{R}^7)_3$  in the recurring unit (III) of the formula (4) is at least one group selected from the group consisting of t-butoxycarbonyl group, 1-methylcyclopentyloxycarbonyl group, 1-methylcyclohexyloxycarbonyl group, and the groups represented by the following formulas (ii-1), (ii-2), (ii-10), (ii-11), (ii-13), (ii-14), (ii-16), (ii-17), (ii-22), (ii-23), (ii-34), (ii-35), (ii-40),



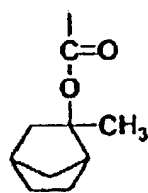
(ii-41), (ii-52), or (ii-53).



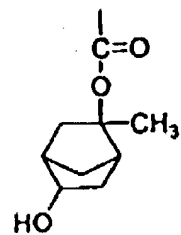
(ii-13)



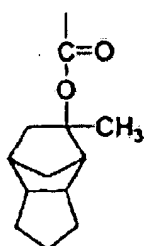
(ii-14)



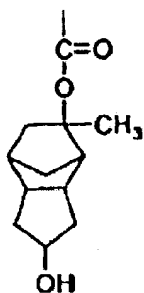
(ii-16)



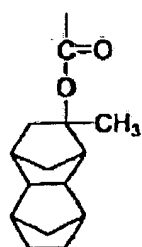
(ii-17)



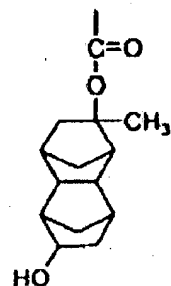
(ii-22)



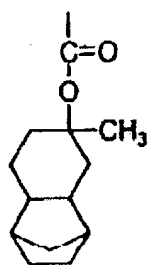
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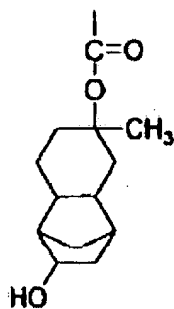
(ii-34)



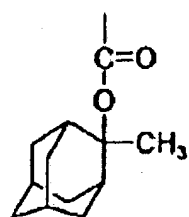
(ii-35)



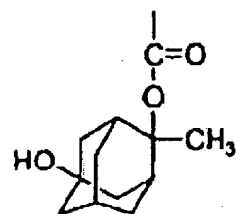
(ii-40)



(ii-41)

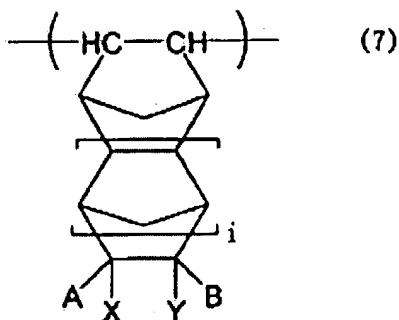


(ii-52)



(ii-53)

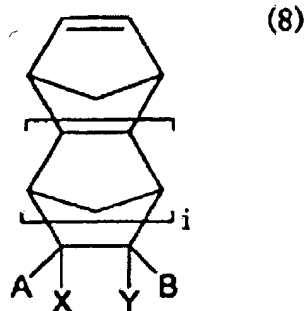
9. (Original) The radiation-sensitive resin composition according to Claim 5, wherein the alkali insoluble or scarcely soluble acid-labile group-containing resin (A) further comprises an acid-labile group-containing recurring unit shown with the following formula (7):



wherein A and B individually represent a hydrogen atom or an acid-labile group having 20 or less carbon atoms which dissociates and produces an acidic functional group in the presence of an acid, at least one of A and B being the acid-labile group, X and Y individually represent a hydrogen atom or a linear or branched monovalent alkyl group having 1-4 carbon atoms, and i is an integer of 0 to 2.

10. (Original) The radiation-sensitive resin composition according to Claim 9, wherein the recurring unit represented by the formula (7) in the component (A) is a recurring unit originating from at least one compound selected from the group consisting of:

a compound of the following formula (8),



wherein either one of A and B or both are a t-butoxycarbonyl group, 1-methylcyclopentyloxycarbonyl group, 1-methylcyclohexyloxycarbonyl group, or the group shown by the formulas (ii-1), (ii-2), (ii-10), (ii-11), (ii-13), (ii-14), (ii-16), (ii-17), (ii-22), (ii-23), (ii-34), (ii-35), (ii-40), (ii-41), (ii-52), or (ii-53), the remainder of the A and B, X, and Y are a hydrogen atom, and i is 0;

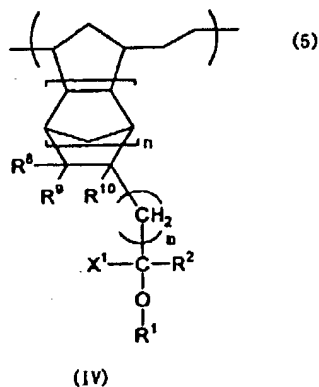
a compound of the formula (8) in which either one of A and B or both are a t-butoxycarbonyl group, 1-methylcyclopentyloxycarbonyl group, 1-methylcyclohexyloxycarbonyl group, or the group shown by the formulas (ii-1), (ii-2), (ii-10), (ii-11), (ii-13), (ii-14), (ii-16), (ii-17), (ii-22), (ii-23), (ii-34), (ii-35), (ii-40), (ii-41), (ii-52), or (ii-53), the remainder of the A and B, X, and Y are a hydrogen atom, and i is 1; and

5,6-di (t-butoxycarbonylmethoxycarbonyl)bicyclo [2.2.1] hept-2-ene,

8-methyl-8-t-butoxycarbonyltetracyclo [4.4.0.1<sup>2,5</sup>.1<sup>7,10</sup>] dodec-3-ene, and

8-methyl-8-t-butoxycarbonylmethoxycarbonyltetracyclo [4.4.0.1<sup>2,5</sup>.1<sup>7,10</sup>]dodec-3-ene.

11. (Previously Presented) A radiation-sensitive resin composition comprising (A) an acid-labile group-containing resin having a recurring unit (IV) represented by the following formula (5) and (B) a photoacid generator:



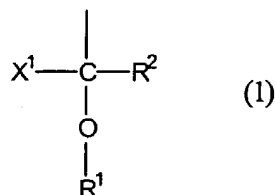
wherein  $R^1$  represents a hydrogen atom, a monovalent acid-labile group, an alkyl group having 1-6 carbon atoms which does not have an acid-labile group, or an alkylcarbonyl group having 2-7 carbon atoms which does not have an acid-labile group,  $X^1$  represents a linear or branched fluorinated alkyl group having 1-4 carbon atoms,  $R^2$  represents a hydrogen atom, a linear or branched alkyl group having 1-10 carbon atoms, or a linear or branched fluorinated alkyl group having 1-10 carbon atoms,  $R^8$ ,  $R^9$ , and  $R^{10}$  individually represents a hydrogen atom or a linear or branched alkyl group having 1-4 carbon atoms, a monovalent oxygen-containing polar group, or a monovalent nitrogen-containing polar group,  $n$  is an integer of 0-2, and  $m$  is an integer of 0-3.

12. (Previously Presented) The radiation-sensitive resin composition according to Claim 5, wherein the photoacid generator of component (B) is at least one compound selected from the group consisting of an onium salt compound, halogen-containing compound, diazoketone compound, sulfone compound, and sulfonic acid compound.

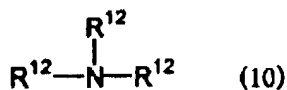
13. (Previously Presented) The radiation-sensitive resin composition according to Claim 5, further comprising a nitrogen-containing organic compound as an acid diffusion controller.

14. (Previously Presented) A radiation-sensitive resin composition comprising (A) an acid-labile group-containing resin having a structure represented by the following formula (1); (B) a photoacid generator; and (C) a nitrogen containing organic compound as an acid diffusion

controller:



wherein R<sup>1</sup> represents a hydrogen atom, a monovalent acid-labile group, an alkyl group having 1-6 carbon atoms which does not have an acid-labile group, or an alkylcarbonyl group having 2-7 carbon atoms which does not have an acid-labile group, X<sup>1</sup> represents a linear or branched fluorinated alkyl group having 1-4 carbon atoms, and R<sup>2</sup> represents a hydrogen atom, a linear or branched alkyl group having 1-10 carbon atoms, or a linear or branched fluorinated alkyl group having 1-10 carbon atoms and wherein the nitrogen-containing organic compound selected from the group consisting of a compound shown by the following formula (10), a compound having two nitrogen atoms in the molecule, a polyamino compound or polymer having three or more nitrogen atoms, a quaternary ammonium hydroxide compound, an amide group-containing compound, a urea compound, and a nitrogen-containing heterocyclic compound.



wherein R<sup>12</sup> individually represents a hydrogen atom, a substituted or unsubstituted, linear, branched, or cyclic alkyl group, substituted or unsubstituted aryl group, or substituted or unsubstituted aralkyl group.

15. (Previously Presented) The radiation-sensitive resin composition according to Claim 5, further comprising an alicyclic additive having an acid-labile organic group.

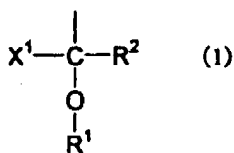
16. (Original) The radiation-sensitive resin composition according to Claim 15, wherein the alicyclic additive is at least one compound selected from the group consisting of an



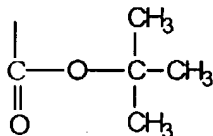
adamantane derivative, a deoxycholate, a lithocholate, and  
2,5-dimethyl-2,5-di (adamantylcarbonyloxy)hexane.

17. (Cancel)

18. (Previously Presented) A radiation-sensitive resin composition comprising (A) an acid-labile group-containing resin having a structure represented by the following formula (1) and (B) a photoacid generator:

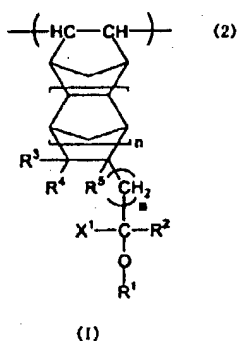


wherein R<sup>1</sup> is a methyl group or a moiety represented by the following structure:



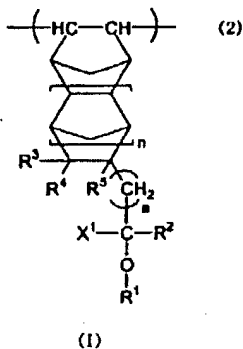
X<sup>1</sup> represents a linear or branched fluorinated alkyl group having 1-4 carbon atoms, and R<sup>2</sup> represents a hydrogen atom, a linear or branched alkyl group having 1-10 carbon atoms, or a linear or branched fluorinated alkyl group having 1-10 carbon atoms.

19. (Currently Amended) A radiation-sensitive resin composition comprising (A) an acid-labile group-containing resin and (B) a photoacid generator, wherein the acid-labile group-containing resin comprises a recurring unit (I) represented by the following formula (2):



wherein  $R^1$  represents a monovalent acid-labile group, an alkyl group having 1 - 6 carbon atoms which does not have an acid-labile group, or an alkylcarbonyl group having 2 - 7 carbon atoms which does not have an acid-labile group,  $X^1$  represents a linear or branched fluorinated alkyl group having 1-4 carbon atoms, and  $R^2$  represents a hydrogen atom, a linear or branched alkyl group having 1-10 carbon atoms, or a linear or branched fluorinated alkyl group having 1-10 carbon atoms and wherein each of  $R^3$ ,  $R^4$ , and  $R^5$  individually represent a hydrogen atom or a linear or branched alkyl group having 1 - 4 carbon atoms, a monovalent oxygen-containing polar group, or a monovalent nitrogen-containing polar group,  $n$  is an integer of 0 - 2, and  $m$  is an integer of 0 - 3.

Claims 20-21. Cancel



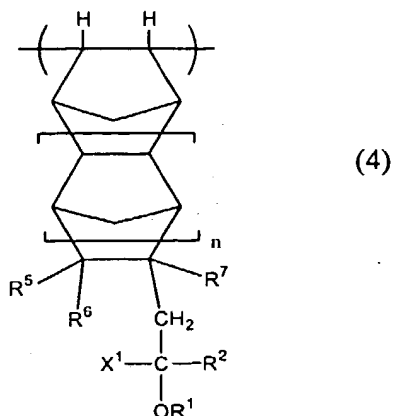
wherein  $R^1$  represents a hydrogen atom, a monovalent acid-labile group, an alkyl group having 1-6 carbon atoms which does not have an acid-labile group, or an alkylcarbonyl group having 2-7 carbon atoms which does not have an acid-labile group,  $X^1$  represents a linear or branched fluorinated alkyl group having 1-4 carbon atoms, and  $R^2$  represents a hydrogen atom or a linear or branched alkyl group having 1-10 carbon atoms and wherein each of  $R^3$ ,  $R^4$ , and  $R^5$  individually represent a hydrogen atom or a linear or branched alkyl group having 1 - 4 carbon atoms, a monovalent oxygen-containing polar group, or a monovalent nitrogen-containing polar group, n is an integer of 0 - 2, and m is an integer of 0 - 3.

23 - 24 (Cancel)

25. (Previously Presented) A radiation-sensitive resin composition comprising

(A) an acid-labile group-containing resin having a recurring unit of the following formula

(4),

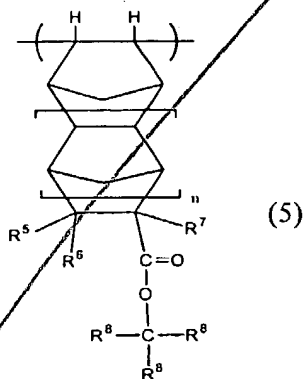


wherein  $R^1$  represents a hydrogen atom or a monovalent acid-labile group,  $X^1$  represents a linear or branched fluoroalkyl group having 1-4 carbon atoms, and  $R^2$  represents a hydrogen atom, a linear or branched alkyl group having 1-10 carbon atoms, or a linear or branched fluorinated alkyl group having 1-10 carbon atoms, and  $R^5$ ,  $R^6$ , and  $R^7$  individually represent a hydrogen atom, a linear or branched alkyl group having 1-4 carbon atoms, a monovalent oxygen-containing polar group, or a monovalent nitrogen-containing polar group, and  $n$  is an integer of 0-2,

wherein all recurring units forming the resin are derived from a norbornene derivative or a tetracyclododecene derivative, and

(B) a photoacid generator.

26. The radiation-sensitive resin composition according to Claim 25, wherein the acid-labile group-containing resin (A) further comprises a recurring unit of the following formula (5),

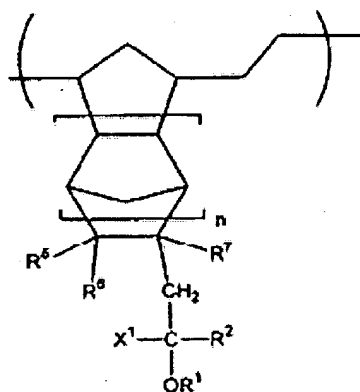


wherein  $R^5$ ,  $R^6$  and  $R^7$  individually represent a hydrogen atom, a linear or branched alkyl group having 1-4 carbon atoms, a monovalent oxygen-containing polar group, or a monovalent nitrogen-containing polar group,  $n$  is an integer of 0-2, and wherein each  $R^8$  individually represents a linear or branched alkyl group having 1-4 carbon atoms or a monovalent alicyclic hydrocarbon group having 4-20 carbon atoms or a derivative thereof, or any two of the  $R^8$  groups form, in combination and together with the carbon atom with which these groups bond, a divalent alicyclic hydrocarbon group having 4-20 carbon atoms or a derivative thereof with the remaining  $R^8$  group being a linear or branched alkyl group having 1-4 carbon atoms or a monovalent alicyclic hydrocarbon group having 4-20 carbon atoms or a derivative thereof.

27. (Previously Presented) A radiation-sensitive resin composition comprising,

(A) an acid-labile group-containing resin having a recurring unit of the following formula

(6),



(6)

wherein  $R^1$  represents a hydrogen atom or a monovalent acid-labile group,  $X^1$  represents a linear or branched fluoroalkyl group having 1-4 carbon atoms, and  $R^2$  represents a hydrogen atom, a linear or branched alkyl group having 1-10 carbon atoms, or a linear or branched fluorinated alkyl group having 1-10 carbon atoms, and wherein  $R^5$ ,  $R^6$  and  $R^7$  individually represent a hydrogen

atom, a linear or branched alkyl group having 1-4 carbon atoms, a monovalent oxygen-containing polar group, or a monovalent nitrogen-containing polar group, n is an integer of 0-2,

the resin being synthesized by metallocene polymerization and a hydrogenation reaction,  
and

(B) a photoacid generator.

28 - 29 (Cancel)

30. (Previously Presented) The radiation-sensitive resin composition according to Claim 25, wherein R<sup>1</sup> in the formula (1) is a hydrogen atom and both X<sup>1</sup> and R<sup>2</sup> in the formula (1) are trifluoromethyl groups.

31. (Currently Amended) The radiation-sensitive resin composition according to Claim 27, wherein R<sup>1</sup> in the formula (1) is a hydrogen atom and both X<sup>1</sup> and R<sup>2</sup> in the formula (1) are trifluoromethyl groups.